

## ABSTRACT

5 A method and a system are described to assign bandwidth in a point-to-multipoint ATM transmission system, comprising a centralised unit or Master Station (MS) and a plurality of peripheral units (PSs), in particular to assign transmission bandwidth on the channel from PSs to MS, by assigning transmission abilitations in defined time slots sending messages called Grants on the channel from MS to PSs.

10 The system comprises means adapted to preallocate a certain portion of the total bandwidth in static way to various PSs on the basis of the information about active connections without considering queue status of the PSs.

15 According to the invention MS comprises additional means able to elaborate instantaneous bandwidth requirement information ("Requests") sent by PSs and able to allow distribution of bandwidth not assigned with previous static technique according to two additional modalities together defined dynamic bandwidth allocation mode and explicitly described in the following:

20 - first additional modality is defined guaranteed dynamical bandwidth and means are structured in a way to generate a rate of assignment of transmission abilitations (Grants) that is prefixed but is real time modifiable according to instantaneous bandwidth requirements notified by each PS, so that a minimum guaranteed bandwidth defined during connection setup phase is always assigned when requested with precise notification.

25 - second additional modality is called available dynamic bandwidth and means are structured in a way that allow assignment of bandwidth which is not assigned by the previous techniques by sharing it in equal parts among all the PSs that signal to the MS the need to use the channel from PSs to MS to send traffic (Figure 3).

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